



NDGPS Program Update

CGSIC 46th Meeting

September 25, 2006

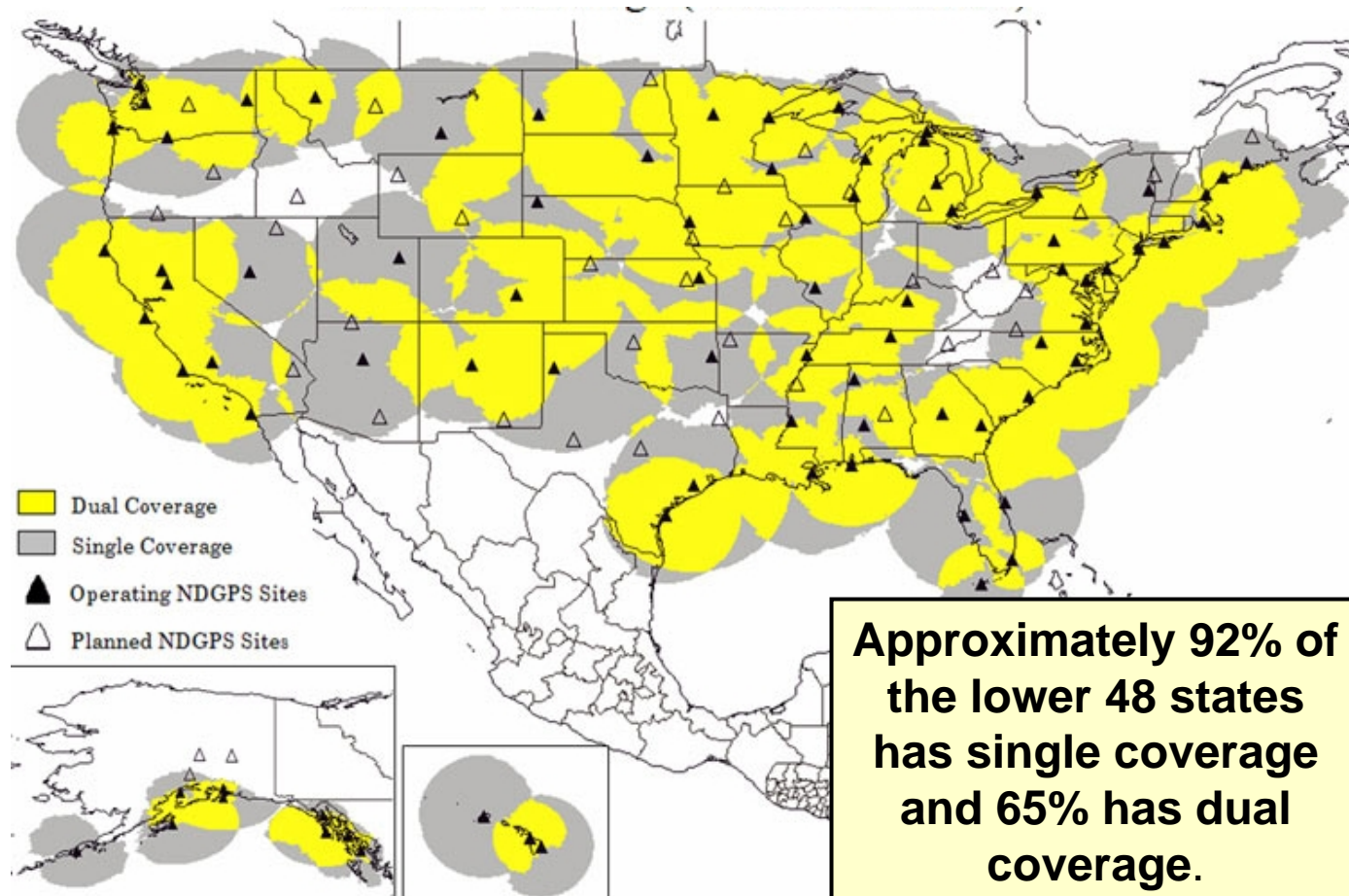
Office of the Secretary – Navigation & Spectrum
DOT Research & Innovative Technology Administration

Outline



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- Background
 - Recent programmatic updates
 - DOT Positioning and Navigation Executive Committee options and decision
 - Way ahead
 - Research & Innovative Technology Administration (RITA) role

Current NDGPS Coverage



NDGPS Background



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- Expansion of pre-existing Maritime DGPS network
 - Interagency Memorandum of Agreement signed in 1999
 - OST, FRA, FHWA, NOAA, Army Corps of Engineers, USCG, and U.S. Air Force, DOT took formal responsibility AF GWEN sites
 - USCG manages, operates, and maintains NDGPS sites on behalf of DOT through reimbursable agreement
 - NDGPS Executive Steering Council Meeting in April 2004 Decision to seek sole funding through FRA.
 - Pursue four year deployment plan (\$25.7 M /year)
 - Dual coverage nationwide, single coverage in Alaska, and High Accuracy upgrade (assumed full funding - no priorities assigned to these objectives)
 - FY98-FY06 total of \$53.7 M spent on NDGPS
 - Does not include in-kind contributions

PNT Exec Committee Tasking



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- National PNT Executive Committee tasked DOT to develop NDGPS funding strategy for FY 08 – FY 13
 - Funding strategy in doubt since FY 07 President's Budget contained no NDGPS funding
 - FRA / Rail industry does not consider NDGPS as essential to the Positive Train Control systems currently being deployed

Decisions to Date



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- Shift Sponsorship from FRA to RITA in FY07
 - RITA to assess future program direction
 - No current transportation requirements for NDGPS
 - FRA, ITS/JPO, FHWA, and NHTSA may have **future** requirements for High Accuracy / High Performance NDGPS
 - Operating Plan for FY07
 - Halt all new NDGPS site construction
 - Utilize FY06 funding for O&M through FY07
 - DOT transferred \$8.2M to USCG in June 06 for O&M
 - Long Run – Wait for Congressional decision on FY07 budget

Without additional FY07 funding from Congress or Interagency contributions, program risks termination once O&M funding is depleted.

Contingency Plans



- If FY08 funding falls below minimum O&M level:
 - DOT may be forced to terminate signal transmission and “mothball” inland NDGPS sites to preserve future options
 - Preserves option to re-establish NDGPS service to meet potential future requirements and avoid termination
 - USCG would continue to operate 40 maritime sites and assume operation of approximately 9 current NDGPS sites
- Cost to implement the preservation/mothball option
 - One time system hibernation cost: \$1.2M
 - Annual recurring maintenance costs: \$1M
- NDGPS termination costs: over \$10M

DOT Pos/Nav Executive Committee FY 08 Options



1. Another Department assumes program sponsorship
2. Obtain interagency funding contributions
3. DOT/RITA continues as program sponsor
 - Lack of current transportation requirements
 - OMB support for this option unknown
 - Lack of O&M funds may result in exercising of “mothball” option
4. Terminate system

DOT Pos/Nav Executive Committee selected Option 3

Way Ahead



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- Convene NDGPS Policy Implementation Team meeting
 - Tentatively planned for October 4
 - Update NDGPS MOA to transfer sponsorship
 - Review FHWA HA outreach program
 - Educate senior government officials about the benefits of NDGPS to their respective Departments
 - Increase user base support
 - Develop long term funding strategy for program

Research and Innovative Technology Administration (RITA) R&D Role



- RITA will perform system engineering activities in support of development of a National PNT Architecture that will determine the best method to meet the high performance PNT needs of the transportation community and identify the future role of NDGPS as part of this national architecture

RITA R&D Role



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- A PNT system engineering analysis will be initiated to address the best methods to meet civil PNT requirements, including those of transportation applications that have identified High Performance NDGPS as a potential solution
 - User Needs Evaluation
 - PNT Technology Assessment
 - Future Environment Definition
 - Analysis Tools Development
 - Evolved NDGPS Baseline Assessment
 - Analysis of PNT Architecture Alternatives
 - Cost/Benefit Analysis

Summary



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- The investment that has been made in NDGPS needs to be preserved until work has been done to determine to what extent this infrastructure can meet user needs as part of a national PNT architecture
 - All options for operating and maintaining the system, including public-private partnerships will be explored